

REMARKS

Claims 1-10 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mortensen et al. (U.S. Pat. No. 5,563,804) in view of Plog (U.S. Pat. No. 6,414,724). This rejection is respectfully traversed.

Applicant respectfully traverses the position provided by the Examiner in the section entitled "Examiner's Response" in the office action for the following reasons:

Mortensen appears to disclose that the video from video formatter 3, the closed captioning data from CC formatter 13 (Fig 3) are sent to the users via path of the network 6 and conference manager 4. This does not imply that the caption has been written into the video and that they are transmitted to users as one object. Furthermore, this does not teach or suggest that the caption and video are transmitted using a single code flow.

As described in the response to the first office action as follows, "As shown in Fig. 3, it can be seen that after receiving signals from a remote side, the video signals and the caption signal are separated at the "VIDEO SIGNAL TUNER" and are respectively transmitted to the "VIDEO CAPTURE INTERFACE" and the "CLOSED CAPTION DECODER." In other words, the video and caption can be separated and

transmitted respectively at the receiving side in accordance with the technical solution of Mortensen." It further implies that the caption and video are transmitted separately, in other words, as two objects, to users in accordance with Mortensen. It would be recognized by one skilled in the art that once the caption has been embedded/written into the video to form a mingled image to be encoded and transmitted as one object, the receiver cannot realize that the received image contains caption after decoding, not to mention to separate them from each other, which cannot be achieved by the prior art.

Step B of claim 1 reads that, "providing a caption overlaying module, overlaying the caption image on a digital service image to generate a mixed image with the caption, and obtaining the mixed image to at least one of display at a local side or transmit to a remote side."

To make the descriptions above more clear, we refer to lines 5 to 9 in the sixth paragraph of the section entitled "Embodiments of the Invention" as follows, "When the remote side is selected, the caption images are sent to the encoder; the encoder overlays the caption images to the service images, and encodes the mingled images with the caption images, and then sends to the remote side so that the captions can be displayed remotely."

In view of the above, from claim 1, we can see that at the transmitting side, a mingled image is formed by overlaying the caption image to the pre-encoded digital service image, and then the newly formed image is encoded by an encoder to form a single image and transmitted as one object/using the same code flow to the receiving side of the interactive video equipment. In other words, the caption has been written on

the video and they are transmitted as one object which is different from that of Mortensen. Correspondingly, at the receiving side, the encoded image is decoded by a decoder as one object, and then the digital service image with the caption image can be displayed. It should be noted that, at the receiving side, the caption image cannot be separated from the decoded digital service image. Instead, it will be shown with the digital service image as one object for the user. It is unnecessary for the decoder at the receiving side to realize that the caption is carried in the digital service image, so the decoder at the receiving side doesn't need to do any additional work.

In view of the above, whether the video and caption are transmitted separately is not determined by whether the video and caption are transmitted by the same physical network; instead, it is determined by whether the video and caption are transmitted via the same code flow.

Applicant traverses the Examiner's position in the "Examiner's response" that "Thus the system clearly combines/mixes the images for display wherein addition some sort of synchronization is required in order to ensure that the closed captioning and video coincide with the same frame/picture". In the response to the first office action, the Applicant only argues that Mortensen doesn't teach writing the caption into the video at the transmitter to form a single image to be transmitted as one object to a remote side. This does not imply that there is no mixed process during the implementation of Mortensen. As described above, since video and caption are transmitted separated to users in accordance with Mortensen, a synchronization mechanism is undoubtedly necessary to mix the caption and video at the receiver to display for the user, which will

raise requirements to devices at the receiver. As argued above, since the caption has been written into the video and they are transmitted as one object to the remote side in accordance with claim 1 of the present invention, thus, no synchronization is needed for devices at the receiving side.

Plog appears to at best discuss how to use a circuit to generate the actual color display for a graphics display with a foreground and a background. In other words, Plog appears to at best disclose a very specific adding method with no relevance to a local side or a remote side. The very specific adding method of Plog is described from a microcosmic point of view, which is not included in the technical features of claim 1. Claim 1 addresses a caption overlaying method described from a macroscopical point of view, which is achieved by using two software modules, i.e., a caption generating module and a caption overlaying module. One of the so many processes included in the technical solution of claim 1 may involve the very specific adding method of Plog, but also can be achieved by other alternative specific adding methods.

In view of the foregoing, claims 1 and 7 define over Mortensen and Plog. Likewise, claims 2-6 and 8-10, which depend from respective claims 1 and 7, also define over Mortensen and Plog.

INFORMATION DISCLOSURE STATEMENT

The Examiner has requested that Applicant expound on the proposed combination of references in the International Search Report used to reject the claims, in order to expedite prosecution.

In the International Search Report, CN 1103526A and CN 1085720 are both placed in category Y with respect to claims 1-10. Applicant respectfully submits that these references fail to anticipate, teach or suggest the subject claims.

CN 1103526A appears to at best disclose a system for adding captions to a live satellite broadcast. The caption information and video are transmitted at different time slots. Specifically, the caption information is transmitted using the unused time slots for transmitting the video. Thus, the caption and video are transmitted separately, which differs from claim 1 of the present invention. Since the video and caption are transmitted separately, a synchronization mechanism is also needed at the receiver, which will raise requirements for devices at the receiver.

CN 1085720 at best discloses a device for performing video deflexion. Applicant respectfully submits that the subject matter of CN 1085720 is not particularly relevant to the subject claims.

In view of the foregoing, claims 1 and 7 define over the cited art. Likewise, claims 2-6 and 8-10, which depend from respective claims 1 and 7, also define over the art.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office

Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9896-000036/US/CO from which the undersigned is authorized to draw.

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Respectfully submitted,

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